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Ms. Tanja Popovic
Chief Science Officer
US Centers for Disease Control and Prevention
Division of Healthcare Quality Promotion
Attn: Resource Center
1600 Clifton Road NE, Mailstop A-31
Atlanta, GA 30333

Re: Draft Guideline for the Prevention of Intravascular Catheter-Related Infections

Dear Ms. Popovic:

The Association for Professionals in Infection Control and Epidemiology (APIC), an international association comprising approximately 13,000 infection prevention and control professionals, wishes to thank the Centers for Disease Control and Prevention for the opportunity to provide comments to the Draft Guideline for the Prevention of Intravascular Catheter-Related Infections.

After review of the draft guideline, APIC suggests the following modifications:

Chlorhexidine

As noted on Page 2 of the draft guideline, one major area of emphasis is using a 2% chlorhexidine (CHG) preparation for skin antisepsis. However, no reference is made to use of chlorhexidine in an alcohol, rather than an aqueous solution. Because recent information has shown that the synergistic effects of CHG and isopropyl alcohol are a key factor in providing adequate initial skin antisepsis, rather than a higher dose of CHG in an aqueous-based solution, professional associations such as the Association for Professionals in Infection Control and Epidemiology (APIC), Infusion Nurses Society (INS), the Society for Healthcare Epidemiology of America (SHEA), and the Infectious Diseases Society of America (IDSA) all have released guidelines recommending use of an alcoholic chlorhexidine solution containing a concentration of chlorhexidine gluconate greater the 0.5%. Since any concentration of CHG greater than 0.5% will provide adequate skin antisepsis as *long as it is in an alcohol solution*, and since specifying 2% CHG limits facilities to only one supplier, APIC recommends changing the guideline to be consistent with the APIC, INS, SHEA and IDSA recommendations, stating "use a greater than 0.5% alcoholic chlorhexidine gluconate based preparation for skin antisepsis". References to the use of chlorhexidine preparation are found in the guideline on line 58 (p.2), line 62 (p.3), line 426 (p. 19), line 627 (p.27), line 1436 (p. 66), and line 1492 (p.69).

In addition, APIC recommends including an explanation for the CHG preference on inanimate objects, as referenced on lines 1074 and 1075 (p. 48*), "4. Minimize contamination risk by wiping the access port with an appropriate antiseptic (chlorhexidine preferred) and accessing the port only with sterile devices [330, 333, 335]. Category IA."*

Additional Recommendations

Lines 330-336 Pg 15
"In retrospective observational studies, catheters inserted into an internal jugular vein have usually been associated with higher risk for colonization and/or CRBSI than those inserted into a subclavian or femoral vein [25, 86-89]. Similar findings were noted in neonates in a single retrospective study [116]. Femoral catheters have been demonstrated to have high colonization rates compared to subclavian and internal jugular sites when used in adults and, in some studies, higher rates of CRBSIs [88, 93-95, 98, 99, 117]."

It appears that these two sentences are contradictory in reference to the risk of colonization from an internal jugular versus femoral line for placement of the catheter. Clarification on the intent of this section is needed.

We suggest adding 2 pediatric references related to this topic:

1. Tsai M-H, Lein R, Wang J-W, et al. Complication rates with central venous catheters inserted at femoral and non-femoral sites in very low birth weight infants. The Pediatric Infectious Disease Journal. 2009. 28(11) 966-970.
2. Begunta RK, Loethen P, Wallace LJ, et al. Differences in the outcome of surgically placed long-term central venous catheters in neonates: neck vs groin placement. Journal of Pediatric Surgery. 2005. 40(1)

Lines 1078 & 1079 Pg 48
"6. When needleless systems are used, the split septum valve is preferred over the mechanical valve due to increased risk of infection [336-339]. Category II"

Since many Infection Preventionists' healthcare facilities have conflicting BSI reduction results with valves vs. split septa, APIC recommends providing clarification for use of valves vs. split septa.

Lines 1151-1152 Pg 51
In Recommendation #10 *"Use the needle and syringe to access the multidose vial only once and to then discard both safely. This applies to each and every dose withdrawn from the vial."* APIC suggests the following change: "Use the needle and syringe to access the multidose vial or infusion container only **one time** and then discard both **the needle and syringe** safely."

Lines 1473- 1476 Pg 68
"11. Use a chlorhexidine-impregnated sponge dressing for temporary short-term catheters in patients older than 2 months of age, if the CRBSI rate is higher than the institutional goal, despite adherence to basic CRBSI prevention measures, including education and training, use of chlorhexidine for skin antisepsis, and MSB [22, 156-158]. Category 1B"

APIC suggests delineating if this is age bracket of 2 months to either true gestational age or adjusted gestational age.

We would also suggest that there is evidence that the chlorhexidine impregnated dressing does not make a difference in the infection rate:

Evaluating Central Venous Catheter Care in a Pediatric Intensive Care Unit American Journal of Critical Care. 2009;18: 514-520 Catheter-related bloodstream infection remains an important health problem for hospitalized children. Although placement of a central venous catheter is a life-saving intervention for critically ill children, these same central catheters are a potential source of infection. Few studies that directly address care of central venous catheters for children in intensive care units have been reported. This evaluation was designed to describe the extent of evidence-based practices for care of insertion sites of central venous catheters in the pediatric intensive care unit of an urban tertiary care center. Another goal was to determine the influence of 2 different regimens for dressing changes on rates of catheter-related bloodstream infections and costs. Results indicate that few differences were found between the transparent dressing alone and a chlorhexidine-impregnated dressing plus the transparent dressing. A serendipitous finding was the number of times that central catheters were accessed daily. The results of this project suggest that infection control efforts may be most appropriately focused on processes rather than on products.
http://ajcc.aacnjournals.org/cgi/content/full/18/6/514

Line 1479 Pg 68
"Use a 2% chlorhexidine wash daily to reduce CRBSI [162]. Category II"

APIC asks CDC to consider addressing this to both the adult **and** pediatric populations.

APIC appreciates the opportunity to provide comments to the Healthcare Infection Control Practices Advisory Committee in its efforts to produce a comprehensive evidence-based guideline. We look forward to alerting our membership of the final outcome of this document.

Sincerely,

Christine Nutty RN

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2009 APIC President